

HU:MGSDVRDLNALLPAVPSLGGGGGCGALFVSGAAQWAPVLDFAFPGASAYGSL
MO:MGSDVRDLNALLPAVSSLGGGGGCGLPVSGAAQWAPVLDFAFPGASAYGSL

HU:GGPAPPPAPPPPPPPPPHPSFIKQEPSWGGAEPEHEEQCLSAFTVHFSGQFTGTAG
MO:GGPAPPPAPPPPPPPPPHPSFIKQEPSWGGAEPEHEEQCLSAFTLHFSGQFTGTAG

HU:ACRYGPF GPPPPSQASSGQARMFPNAPYLPSCLESQPAIRNQGYSTVTFDGTSP
MO:ACRYGPF GPPPPSQASSGQARMFPNAPYLPSCLESQPTIRNQGYSTVTFDGAAPS

HU:YGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCGT
MO:YGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCGT

HU:SQALLLRTPYSSDNLYQMTSQLECMTNQMNLGATLKGVAAGSSSSSVKWTE
MO:SQALLLRTPYSSDNLYQMTSQLECMTNQMNLGATLKGMAAGSSSSSVKWTE

HU:GQSNHSTGYESDNHTTPEILCGAQYRIHTHGVFRGIQDVRRVPGVAPTLVRSAS
MO:GQSNHGIGYESDNHTAPEILCGAQYRIHTHGVFRGIQDVRRVSGVAPTLVRSAS

HU:ETSEKRPFMCAYPGCNKRYFKLSHLQMHRSRKHTGEKPYQCDFKDCERRFSR
MO:ETSEKRPFMCAYPGCNKRYFKLSHLQMHRSRKHTGEKPYQCDFKDCERRFSR

HU:SDQLKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGKTSEKPFSCR
MO:SDQLKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGKTSEKPFSCR

HU:WPSCQKKFARSDELVRHENMEQRNMTKLQAL
MO:WHSCQKKFARSDELVRHENMEQRNMTKLHVAL

FIG. 1



FIG. 2

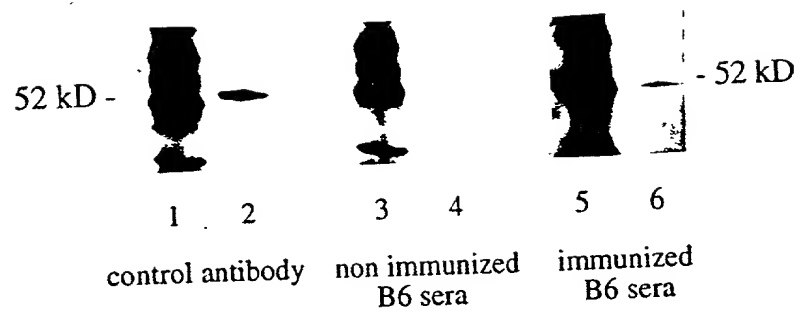


FIG. 3

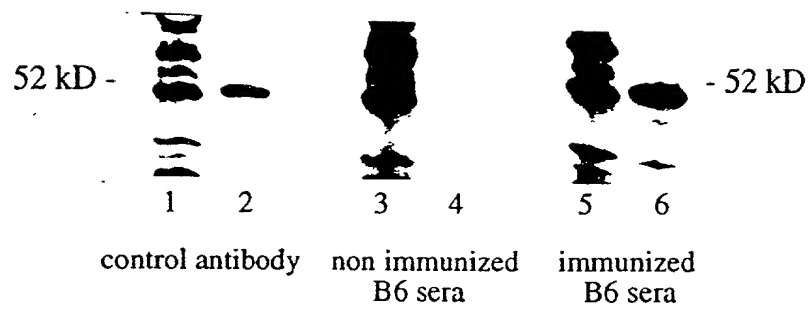


FIG. 4

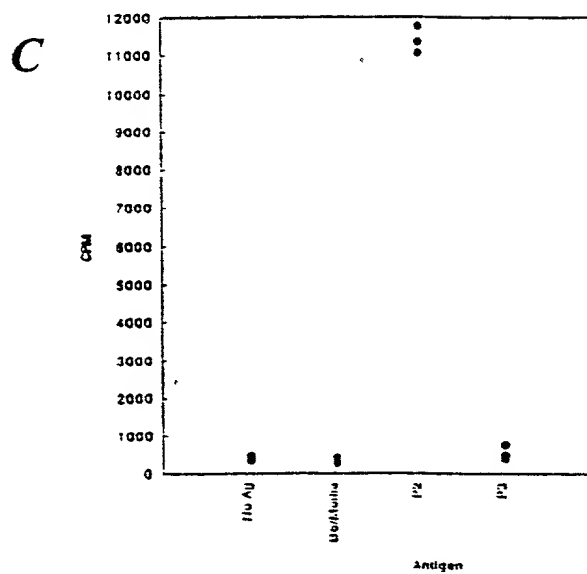
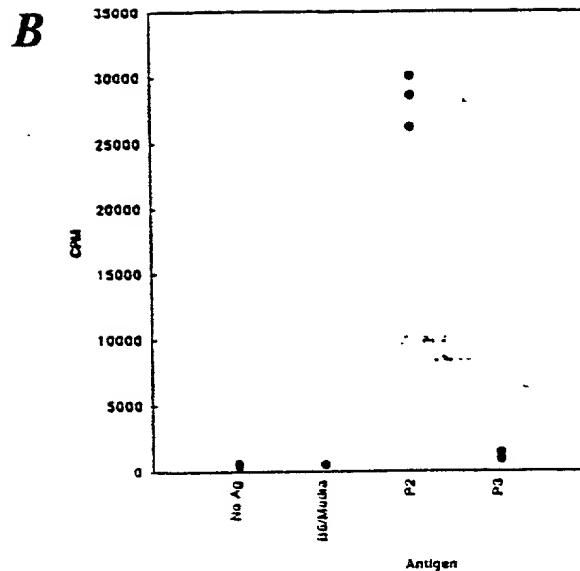
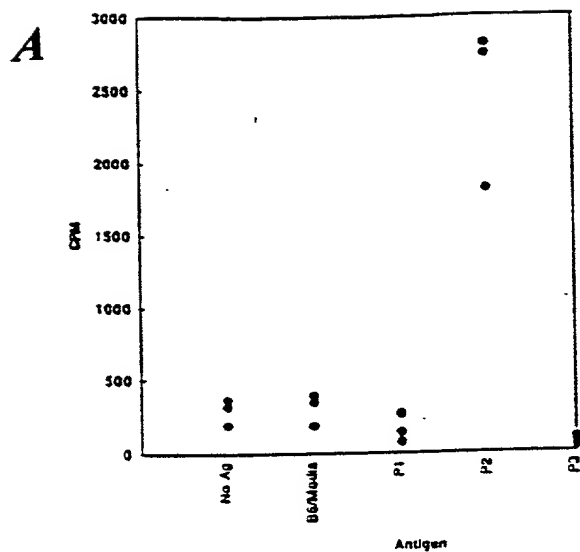
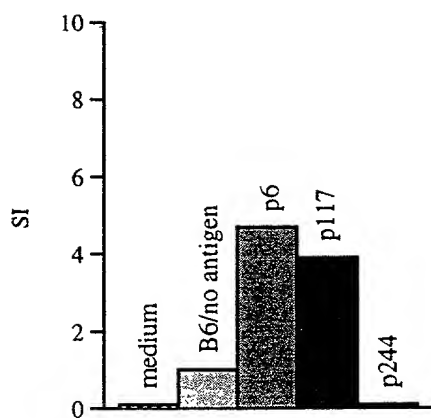


FIG. 5A-5C

A Vaccine A stimulated line



B Vaccine B stimulated line

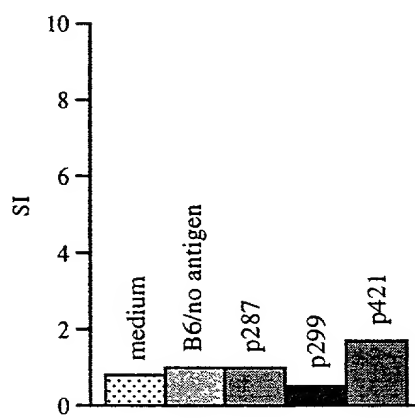
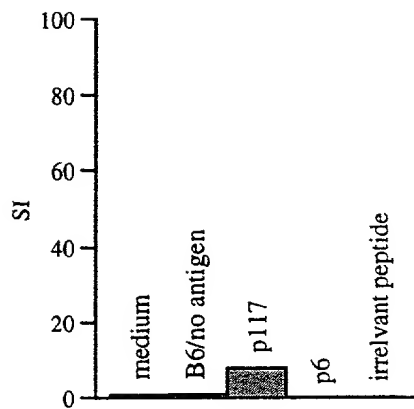
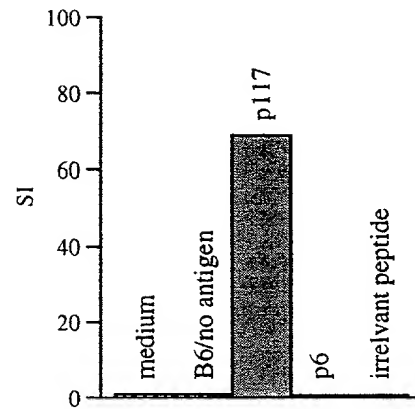


FIG. 6A and 6B

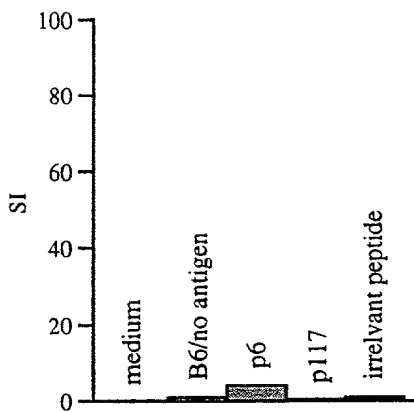
A p117-139 stimulated line



B p117-139 stimulated clone



C p6-22 stimulated line



D p6-22 stimulated clone

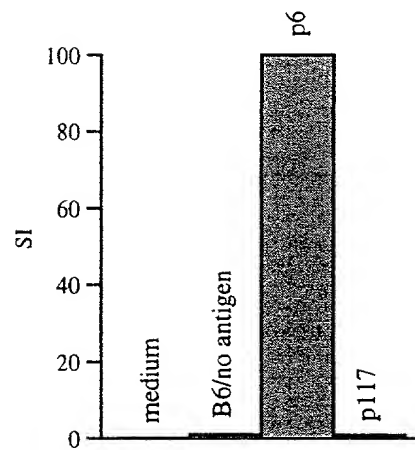


FIG. 7A-7D

```

5   10   15   20   25   30   35   40   45   50   55   60   65   70   75
MGSDVROLDNALLPAVPSLGGGGGCGALFVSGAAQWAPVLDFAPPGASAYGSLGGPAPPPAPPPPPPPPHSFIKQE
.....AAAAAAAAAAAAAAAA.....AAAAA.....AAAAAAAAAAAA.....
.....RRRR.....
.....
.....

80  85  90  95  100  105  110  115  120  125  130  135  140  145  150
PSWGGAEPEEQCLSAFTVHFSGQFTGTAGACRYGPFPGPPPSQASSGOARMFPNAPYLPSCLESQPAIRNQYS
.....AAA.....AAAA.....AAA.....AAAAA.....
.....RRRR.....RRRRR.....
.....DDDDDDDD.....
.....

155 160 165 170 175 180 185 190 195 200 205 210 215 220 225
TVTFDGTSPSYGHTPSHAAQFPNHSFKHEDPMGQCGSLGEQQYSVPPPVYGCHTPTDCTGSQALLRTPYSSDN
.....AAAAA.....AAAAA.....AA
.....RRRR.....
.....DDDDDDDDDDDDDD.....
.....

230 235 240 245 250 255 260 265 270 275 280 285 290 295 300
LYQMTSQLECMTNQMNLGATLKGVAAGSSSSVKWTEGQSNHSTGYESDNHTTPILCGAQYRIHGHGVFRGIQDV
AAAAA.....AAA.AAA.....AAAAA.....
.....RRRRRRRRRR.....RRRR.....RRRR.....
DDDDDD.....DDDDDDDDDD.....
.....ddddd.....

305 310 315 320 325 330 335 340 345 350 355 360 365 370 375
RRVPGVAPTLVRSASETSEKRPFCAYPGCNKRYFKLSHLQMSRKHTGEKPYQCDFKDCERRFRSDQLKRHR
AAAAA.AAAAAA.....AAAA.AAAAAA.....
.....RRRR.....RRRR.....
.....DDDDDD.....
.....

380 385 390 395 400 405 410 415 420 425 430 435 440 445 450
RHTGVKPFQCKTCQRKFSRSDHLKTHTRHTGKTSEKPFSCRWPSCQKKFARSDELVRHHNMHQBNMTKLQAL
.....AAAA.AAAA.AA.....AAAA.....AAA.....AAAAA.....AAA.....
.....RRRR.RRRR.....
.....
.....ddddd.....

```

FIG. 8A


```

5   10  15  20  25  30  35  40  45  50  55  60  65  70  75
MGSDVRDLNALLPAVSSSLGGGGGCGLPVSGAACWAPVLDFAPPGASAYGSLGGPAPPPAPPPPPPPPHSFIKQE
.....AAAAAAAAAAAAAAAA.....AAAAA.....AAAAAAAAAAAA.....
.....RRRR.....
.....
.....

80  85  90  95  100 105 110 115 120 125 130 135 140 145 150
PSWGGAEPHEEQCLSAFTLHFSGGQFTGTAGACRYGPFPGPPPSQASSGQARMFPNAPYLPSCLESQPTIRNQYS
.....AAAA.....AAA.....AAAAA.....
.....RRRR.....RRRR.....
.....DDDDDDDD.....
.....

155 160 165 170 175 180 185 190 195 200 205 210 215 220 225
TVTFDGAPSYGHTPSHHAAQFPNHSEKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCTGSQALLLRTPYSSDN
.....AAAA.....AAAAA.....AA
.....RRRR.....
.....DDDDDDDDDDDDDD...
.....

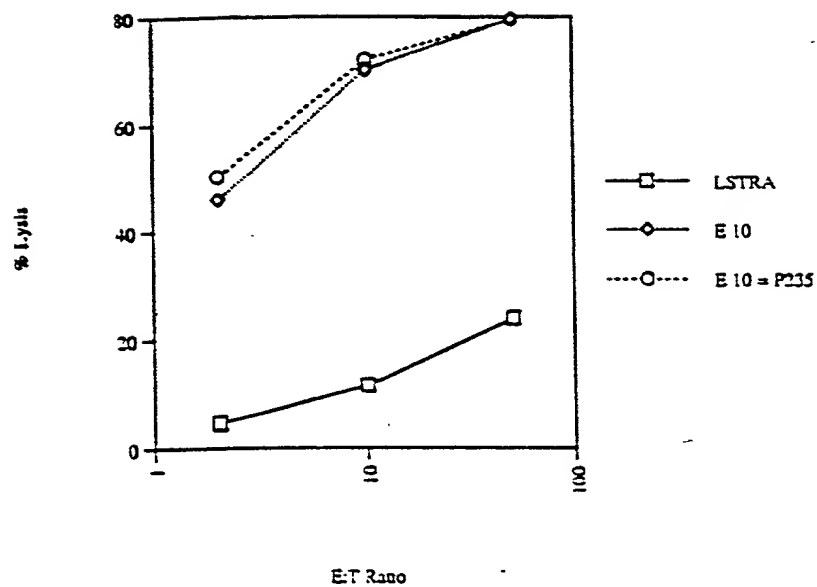
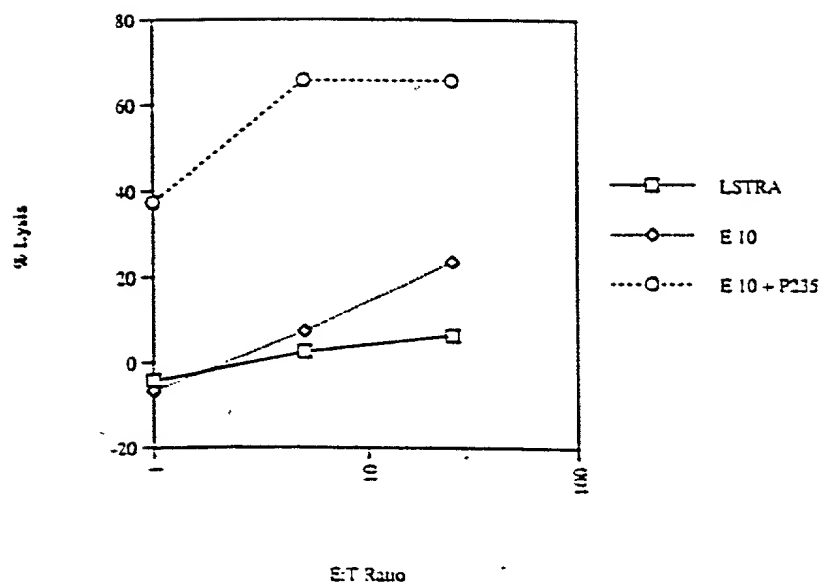
230 235 240 245 250 255 260 265 270 275 280 285 290 295 300
LYQMTSQLCMTWNQMNLGATLKGMAAGSSSSSVKNTGQSNHGIGYESDNHTAPILCGAQYRIHTHGVFRGIQDV
AAAAAAAA.....AAA.AAA.....AAAAAAAAAA
.....RRRRRRRRRR.....RRRR.....RRRR.....
DDDDDD.....DDDDDDDDDDDD.....
.....ddddd.....

305 310 315 320 325 330 335 340 345 350 355 360 365 370 375
RRVSGVAPTIVRSASETSEKRPFCAYPGCNKRYFKLSHLQMHRSRKHTEKPYQCDFKDCERRFSRSDQLKRHR
AAAAA.....AAAAAAAA.....AAAA.AAAAAAAAAA
.....RRRR.....RRRR.....
..DDDDDDDDDD.....
.....

380 385 390 395 400 405 410 415 420 425 430 435 440 445 450
RHTGVKPFQCKTCQRKFSRSDHLKTHTRHTGKTSEKPFSCRWHSCQKKFARSDLVRRHHNMHQRNMTKLHVAL
.....AAAA.AAAA..AA.....AAAA.....AA.....AAAAA.....AAAA.....
.....RRRR..RRRR.....
.....
.....ddddd.....

```

FIG. 8B

A**B****FIG. 9A and 9B**

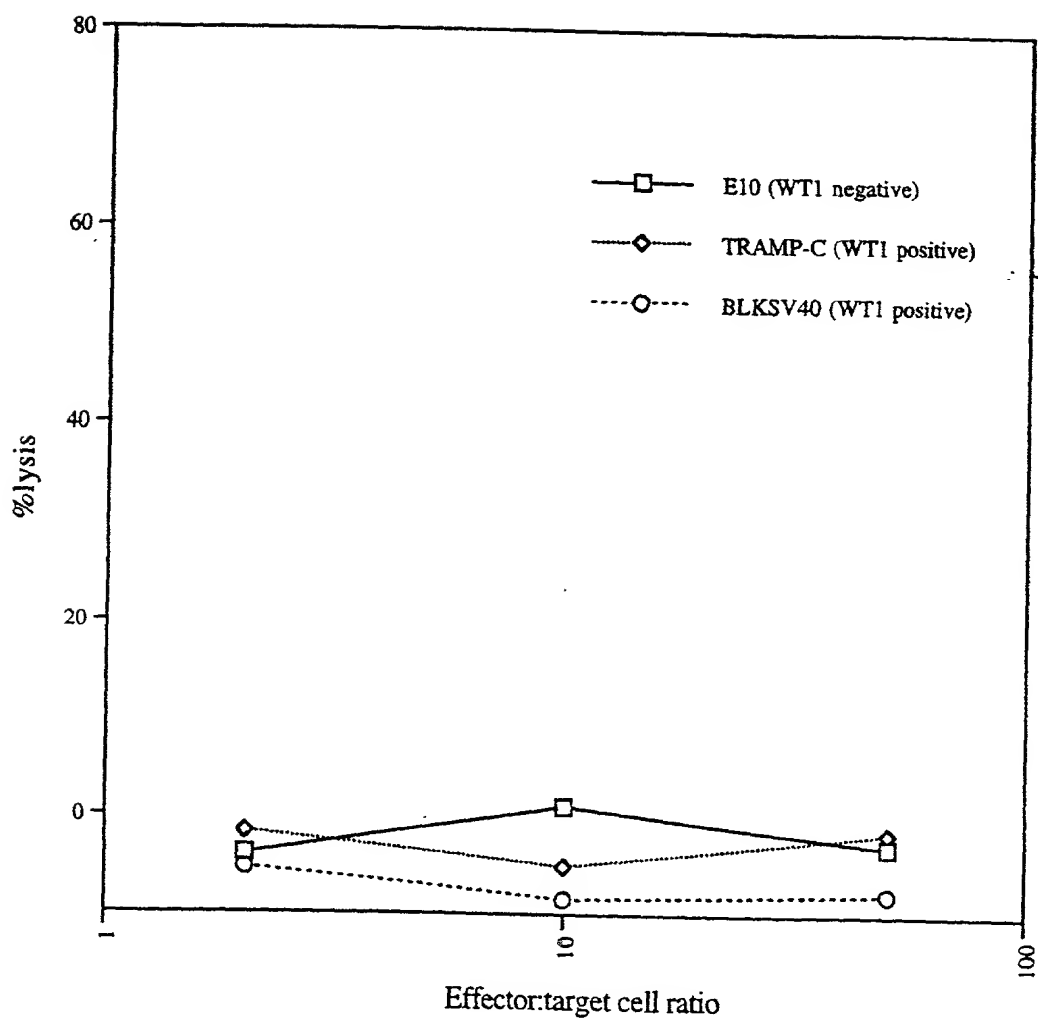


FIG. 10A

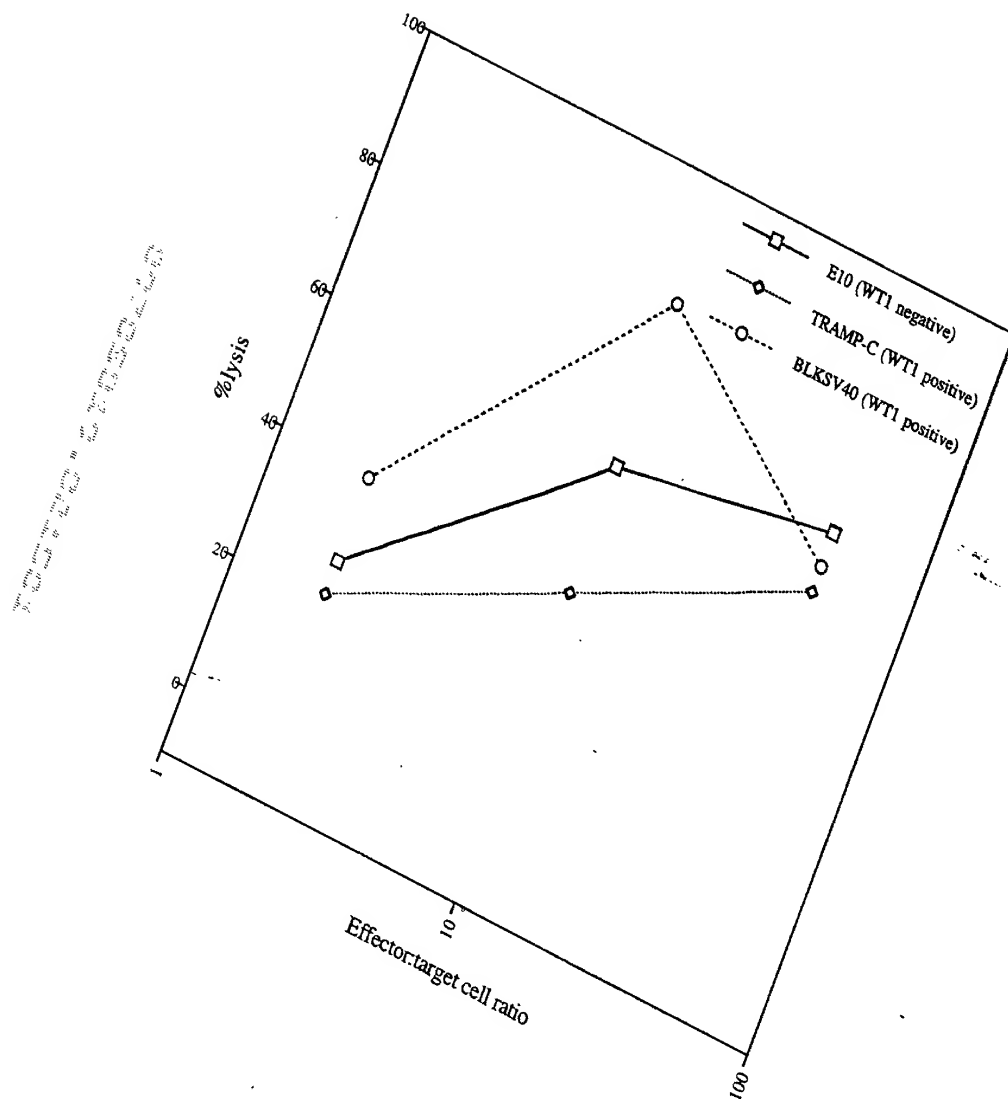
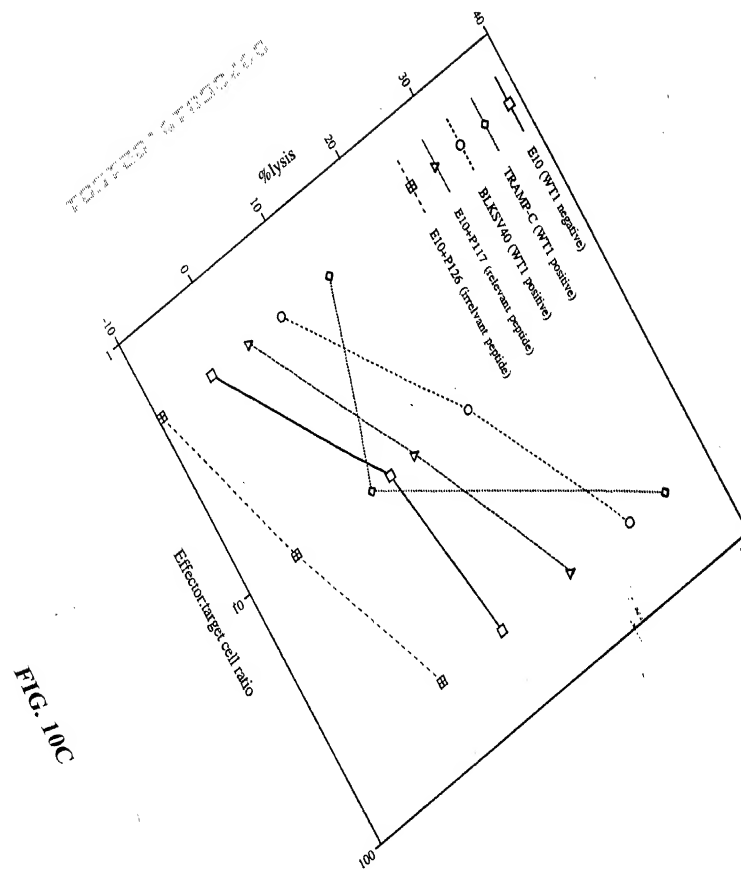


FIG. 10B



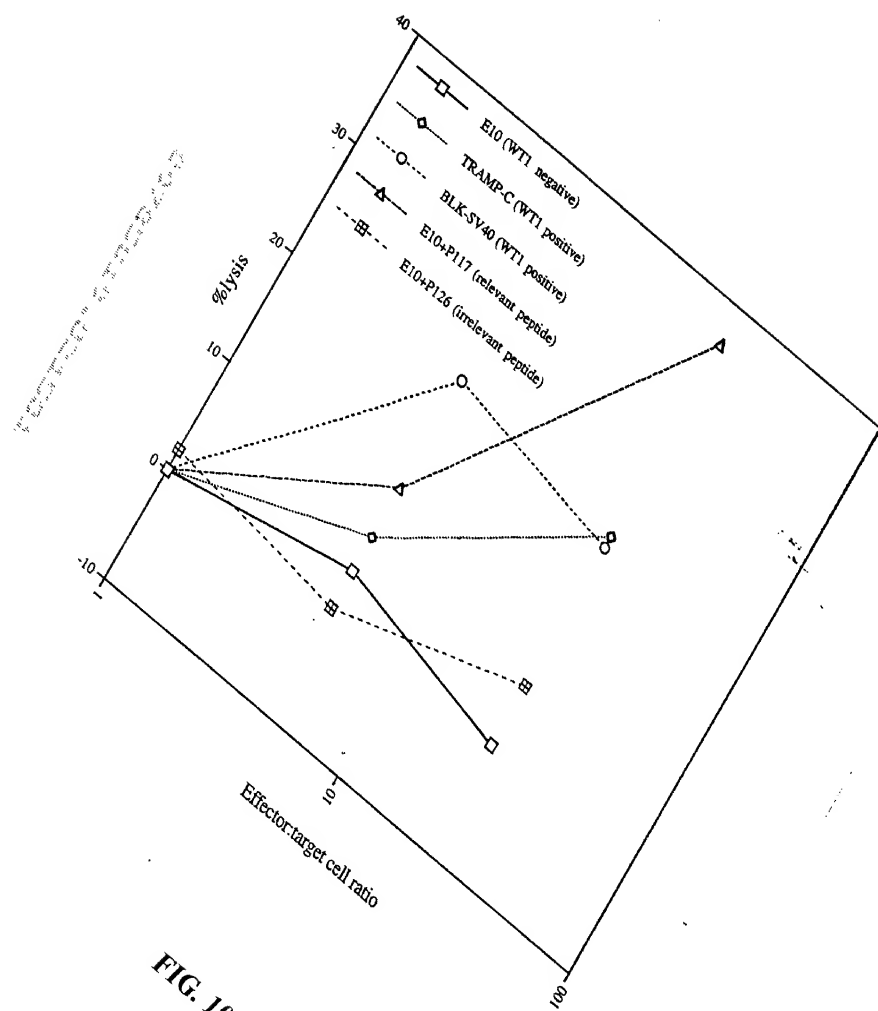
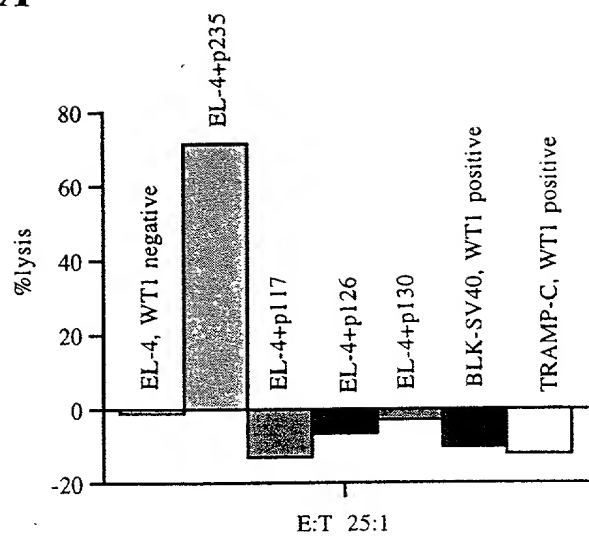


FIG. 10D

A



B

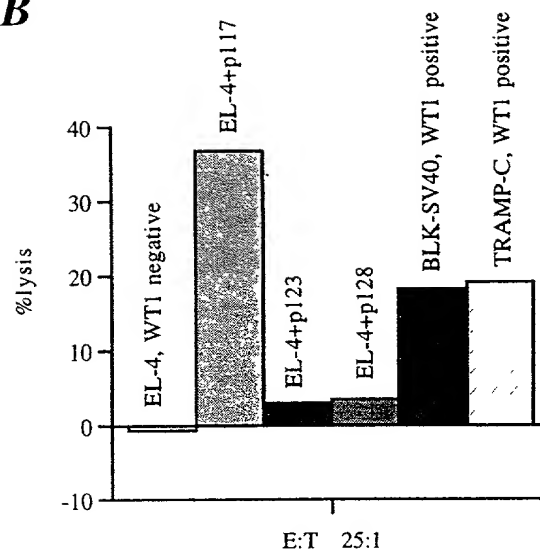
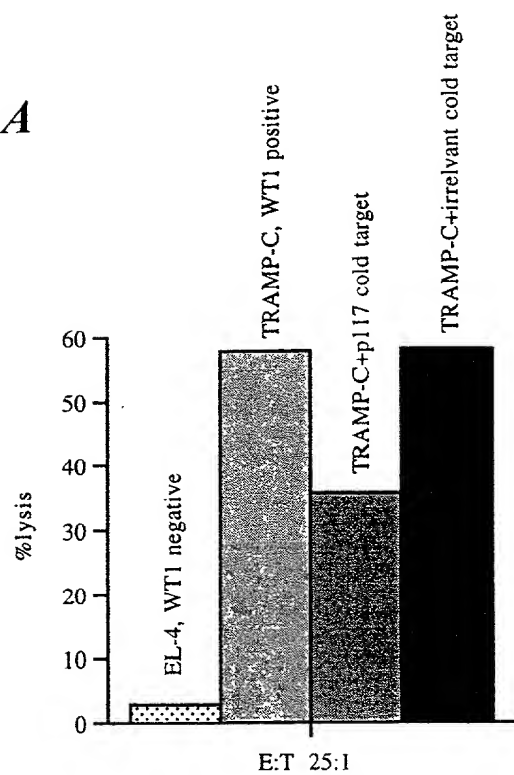
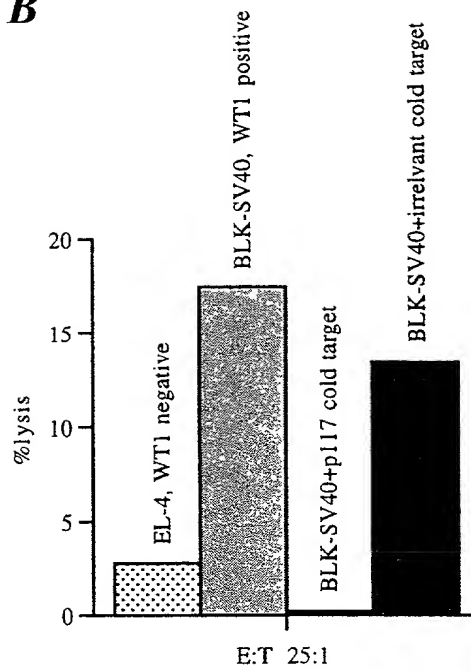


FIG. 11A and 11B

A**B****FIG. 12A and 12B**